

WHAT IS CLAIMED IS:

1. An ATM name system (ANS) for use in a network system which carries out a conference between a plurality of conference room terminals through an ATM (Asynchronous Transfer Mode) network, the conference room terminals comprising a calling conference room terminal for issuing a request for address resolution to the ANS before establishment of a connection between the calling conference room terminal and a destined one of the conference room terminals, the request indicating a room name assigned to the destined conference room terminal, comprising:

a storage section for storing the room name and an ATM end system address (AESA) of the destined conference room terminal; and

processing means for processing the request to resolve the AESA of the destined conference room terminal by referring to the storage by the use of the room name and to send a resolved AESA to the calling conference room terminal.

2. An ATM name system as claimed in claim 1, wherein the storage section comprises:

an address database for storing a priority level corresponding to the room name together with the corresponding AESA ;

the processing means being operable in response to the request to also resolve a priority class of the conference between the calling and the destined conference room terminals with reference to the priority level stored in the address database.

3. An ATM name system as claimed in 2, wherein the storage section further comprises:

a reservation database for storing a reservation that is specified by a start time and an end time of the conference together with the

connection.

4. An ATM name system as claimed in claim 3, wherein the processing means comprises:

judging means for judging whether or not the conference is reserved by referring to the reservation database to monitor the start and the end times when the reservation is made in connection with the conference.

5. An ATM name system as claimed in claim 4, wherein the judging means further starts the connection at the start time when the reservation is made, so as to hold the conference between the calling and the destined conference room terminals.

6. An ATM name system as claimed in claim 5, wherein the judging means judges whether or not a conference duration between the start and the end times lapses, to send, prior to the end time, a previous announcement of releasing the connection to at least one of the calling and the destined conference room terminals.

7. An ATM name system as claimed in claim 6, wherein the storage section further comprises:

a topology database for storing a topology of each conference room terminal in the network system; and

a connection database for storing a connection relationship between the calling and the destined conference room terminals;

the processing means monitoring the conference with referring to the topology and the connection relationship stored in the topology and the connection databases.

8. An ATM name system (ANS) for use in a network system which carries out a multipoint conference between a calling conference room terminal and a plurality of destined conference room terminals through an ATM (Asynchronous Transfer Mode) network, the calling

conference room terminal being for issuing a request for address resolution to the ANS before establishment of connections for the multipoint conference, the ANS being associated with a multipoint conference unit (MPU) and comprising:

processing means for processing the request from the calling conference room terminal to resolve an AESA assigned to the MCU when the multipoint conference is indicated by the request; and

communication means for carrying out communication between the ANS and the MCU to connect the MCU to the respective conference room terminals attending the multipoint conference.

9. An ATM name system as claimed in claim 8, further comprising:

a topology database for storing topology data representative of positions of the calling and the destined conference room terminals in the network system and band data representative of bands of transmission channels used in the multipoint conference;

the processing means being for selecting the MCU by referring to the topology database.

10. An ATM name system as claimed in claim 9, wherein the processing means selects the MCU by recognizing the positions of the calling and the destined conference room terminals and by predicting occupied bands from the band data.

11. An ATM name system as claimed in claim 8, wherein the communication means issues a call setup request to the MCU after the AESA of the MCU is resolved.

12. An ATM name system as claimed in claim 8, further comprising:

a connection database for storing each occupied band of currently used transmission channels and a reserved state;

the processing means comprising:

judging means for judging whether or not the connections are established by referring to each occupied band and the reserved state of the connection database.

13. An ATM name system as claimed in claim 12, wherein the judging means also refers to an occupied state of the MCU so as to establish the connections.

14. An ATM name system as claimed in claim 8, further comprising:

means for storing a priority level of each conference room terminal;

the processing means comprising:

means for determining the connections with reference to the priority level so as to preferentially establish the connections related to the conference room terminal of a higher priority level, when any congestion takes place in the network system.

15. An ATM name system as claimed in claim 14, wherein the processing means comprises:

means for forcibly releasing an existing connection in consideration of an occupied state of the transmission channels and the MCU.

16. An ATM name system as claimed in claim 15, wherein the processing means comprises:

means for transmitting an indication of forcibly releasing to conference room terminals to be released.

17. An ATM name system as claimed in claim 16, wherein the processing means further comprises:

means for informing the calling conference room terminal of impossibility of connections in response to the request for address

resolution when the connections cannot be established.

18. An ATM name system (ANS) for use in a network system which carries out a conference between calling and destined conference room terminals through an ATM (Asynchronous Transfer Mode) network,

the ANS being located in an additional network different from the ATM network and comprising:

a connector between the calling conference room terminal and the ANS; and

processing means for processing a request for address resolution sent from the calling conference room terminal through the additional network to resolve an AESA related to the destined conference room terminal on the ATM network.

19. An ATM network system as claimed in claim 18, wherein the additional network is an intranet.

20. An ATM name system as claimed in claim 18, wherein the processing means resolves the AESA assigned to the destined conference room terminal.

21. An ATM name system as claimed in claim 18, wherein the processing means resolves the AESA assigned to a multipoint conference unit (MCU).

22. An ATM name system as claimed in claim 18, wherein the calling and the destined conference room terminals are connected by SVC (Switched Virtual Connection).

23. An ATM name system (ANS) for use in a network system which carries out a conference between calling and destined conference room terminals connected by PVC (Permanent Virtual Connection) through an ATM (Asynchronous Transfer Mode) network, comprising:

a storage for storing PVC data concerned with the destined conference room terminal; and

processing means for processing the PVC data so as to establish the PVC between the calling and the destined conference room terminals when the conference is requested.

24. A network system comprising an ATM (Asynchronous Transfer Mode) network, a plurality of conference room terminals accommodated in the ATM network, and an ATM name system (ANS), wherein the ANS is used for a conference between the conference room terminals and comprises:

a storage for storing address resolution data concerned with the conference room terminals attending the conference; and

processing means for processing a request for address resolution issued from either one of the conference room terminals to resolve an address by referring to the address resolution data stored in the storage.

25. A network system as claimed in claim 24, wherein the address is an AESA (ATM end system address) which is assigned to a selected one of the conference room terminals and which is stored as the address resolution data in the storage.

26. A network system as claimed in claim 24, wherein the address is specified by PVC (Permanent Virtual Connection) data assigned to a selected one of the conference room terminals and which is stored as the address resolution data in the storage.

27. A network system as claimed in claim 24, wherein the ANS is connected to each conference room terminal through a LAN (Local area network) different from the ATM network.

28. A network system as claimed in claim 24, wherein the storage stores the address resolution data which have no hierarchical

structure and which therefore uniquely define each conference room terminal.

29. A network system as claimed in claim 24, further comprising:

a multipoint conference unit (MCU) accessed by the ANS on a multipoint conference and given a specific AESA.

30. A network system as claimed in claim 29, wherein the ANS resolves the specific AESA of the MCU stored as the address resolution data.

31. A network system as claimed in claim 24, wherein the storage comprises:

an address database for storing the address resolution data concerned with the conference room terminals; and

a topology database for storing topology data representative of positions of the respective conference room terminals in the network system.

32. A network system as claimed in claim 31, wherein the storage further comprises:

a reservation database for storing reservation data concerned with a reservation of the conference; and

a connection database for storing connection data concerned with a connection path used in the conference.

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